Math 9 Surface Area Playground Assignment

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Due Date: \_\_\_\_\_\_\_\_\_\_\_\_\_

**This is a structure designed for children ages 1 - 3 years old.**

**Instructions for the Assignment:**

1. You need a 3-D picture of the entire structure. This will have **no measurements** on it.
2. The picture must be colored.
3. Each object must have a number on it.
4. Each object must be on ground level.
5. The structure will have 5 objects. You must have one of each of the following: triangular

prism, rectangular prism and a cylinder.

1. You must use up as close as possible to the allotted money of $675.00 . You

can’t go over the cost limit.

1. All of your calculations must be shown in the correct cells.
2. The fabric costs are as follows: red at $10/m2, yellow at $11/m2, blue at $12/m2.



1. The skeleton of the structure is made from fibreglass poles that cost $3/m. A fabric



cylinder needs flexible circular supports every 1 m for reinforcement. These cost $4/m.



Note: joiners are included at no extra cost.

Note: your objects that are the same shape can’t have the same measurements!

**Picture of Your Playground Structure**

**Object Number One Shape: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Color: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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| --- |
| **Surface area calculations and support calculations**:  Picture and Dimensions |
| **Cost of the fabric and the cost of the supports:** |

**Object Number Two Shape: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Color: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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| **Surface area calculations and support calculations**:  Picture and Dimensions |
| **Cost of the fabric and the cost of the supports:** |

**Object Number Three Shape: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Color: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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| **Surface area calculations and support calculations**:  Picture and Dimensions |
| **Cost of the fabric and the cost of the supports:** |

**Object Number Four Shape: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Color: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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| **Surface area calculations and support calculations**:  Picture and Dimensions |
| **Cost of the fabric and the cost of the supports:** |

**Object Number Five Shape: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Color: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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| **Surface area calculations and support calculations**:  Picture and Dimensions |
| **Cost of the fabric and the cost of the supports:** |

**Total Cost of the Project:**

**Cost of Object #1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Cost of Object #2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Cost of Object #3: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Cost of Object #4: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Cost of Object #5: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**TOTAL COST:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_